

On some new Species of Spiders (Arachnida) of the Family Thomisidae from India

BY

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(With seven text-figures)

INTRODUCTION

Spiders of the family Thomisidae have received scant attention in India. THE FAUNA OF BRITISH INDIA, ARACHNIDA (1900) contains no reference to this family. Only Stoliczka (1869) and Dyal (1935) described a few new species in the genus *Thomisus*.

While examining the material of spiders preserved in the Zoological Survey of India, I came across several new species of Thomisid spiders, some of which are described elsewhere. The present paper contains descriptions of seven new species. The type specimens are deposited in the Zoological Survey of India, Calcutta.

***Xysticus minutus* sp. nov. (Fig. 1)**

General: Cephalothorax light brown; eyes black, clypeus white, legs greenish, abdomen light brown. Total length 2.20 mm.; carapace 1.00 mm. long, 1.00 mm. wide; abdomen 1.30 mm. long, 1.20 mm. wide.

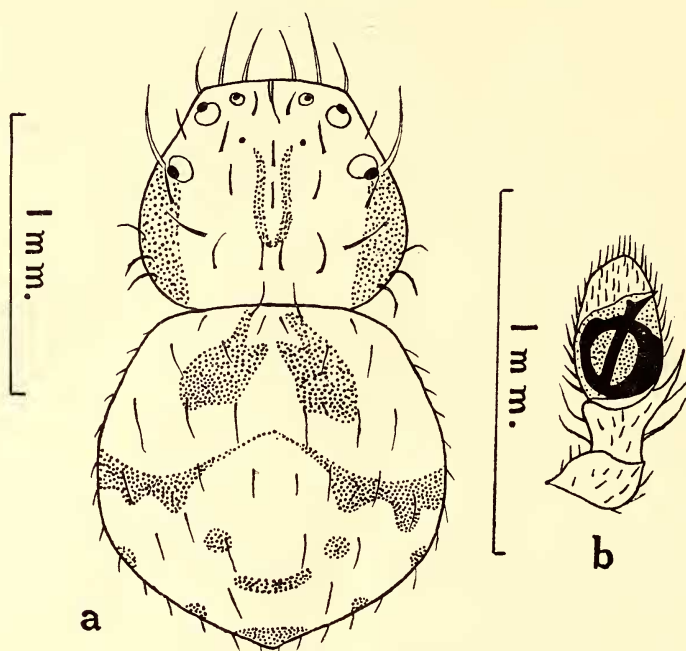
Cephalothorax as long as wide, spined, the sides with broad longitudinal dark brown patches, a pair of long paler brown irregular lines from the base of posterior median eyes, extending to the middle of the thorax. Clypeus medium, margin with seven strong spines, directed forward but the median directed upward. Eyes round, ringed with dirty-white tubercles; ocular quad slightly wider than long, space of the anterior median eyes a little wider than that of posterior; lateral eyes larger; posterior median eyes smaller than anterior medians. Legs spined, with brown transverse bands, tibiae I and II with two pairs of ventral spines. The apex of tibiae I and II with broad dark brown patches.

Abdomen oval, dorsum spined, slightly overlapping the posterior region of cephalothorax, dorsal surface with dentated bands beautifully coloured with admixture of white, dark brown, and red.

Holotype: One female in spirit.

Type-locality: Dhakuria (Calcutta). Coll. B. K. Tikader, 1-4-1958.

This species is closely related to *Xysticus ferox* (Hentz) but differs as follows: (i) sides of cephalothorax with longitudinal dark brown



Text-fig. 1. *Xysticus minutus* sp. nov.

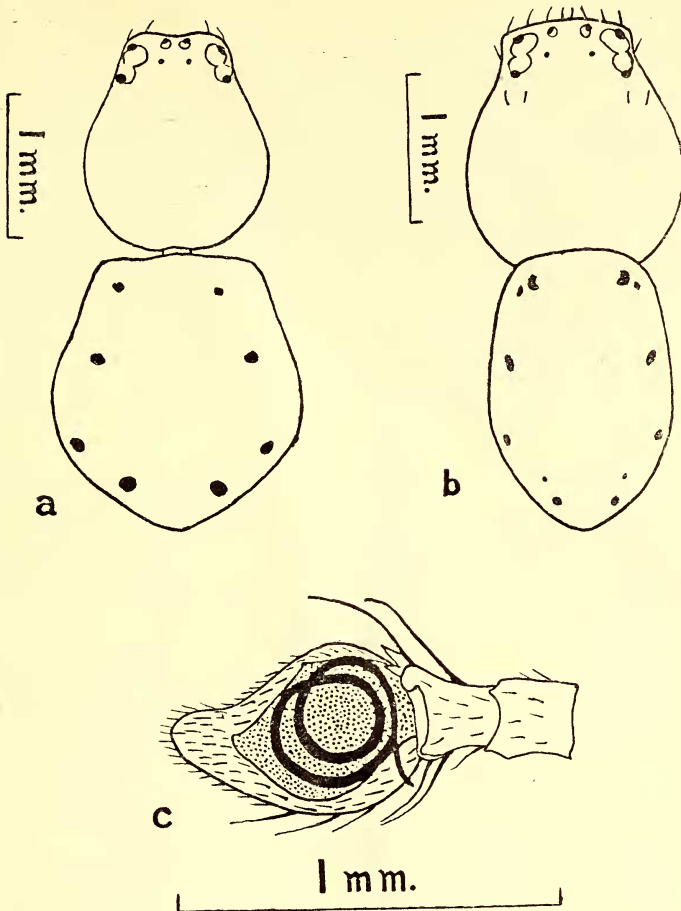
(a) Dorsal view of whole body; (b) male pedipalp.

broad patches and a pair of long pale brown irregular lines from the base of anterior median eyes to the middle of thorax, but in *X. ferox* the cephalothorax is yellowish in the middle and reddish-brown on the sides; (ii) Abdomen light brown, with dentated bands beautifully coloured with admixture of white, dark brown, and red, but in *X. ferox* abdomen brownish-grey above and smoky-white on the sides and three pairs of transverse black bars on the dorsal side of the abdomen.

***Synaema decorata* sp. nov. (Fig. 2)**

General: Cephalothorax green, ocular tubercles chalk-white, eyes black; legs and abdomen green. Total length 3.40 mm.; carapace 1.40 mm. long, 1.40 mm. wide; abdomen 2.00 mm. long, 1.80 mm. wide.

Cephalothorax as long as wide, eyes four pairs, lateral eyes larger, posterior median eyes smaller than the anterior medians, except the

Text-fig. 2. *Synaema decorata* sp. nov.

(a) Dorsal view of whole body of female; (b) Dorsal view of whole body of male; (c) Male pedipalp.

posterior median eyes all ringed with chalk-white ocular tubercles, lateral tubercles contiguous; ocular quad slightly wider than long, space of anterior median eyes a little smaller than that of the posterior median. Clypeus narrow, margin of clypeus bearing slender spines. Legs I and II pairs longer than III and IV; tibia of I leg with four pairs of ventral spines, bases of spines black, the first pair of spines shortest.

Abdomen more or less elliptical, dorsoventrally flattened. Very slightly overlapping the cephalothorax, four pairs of circular black spots on the dorsum near the lateral margin, the posterior pair largest.

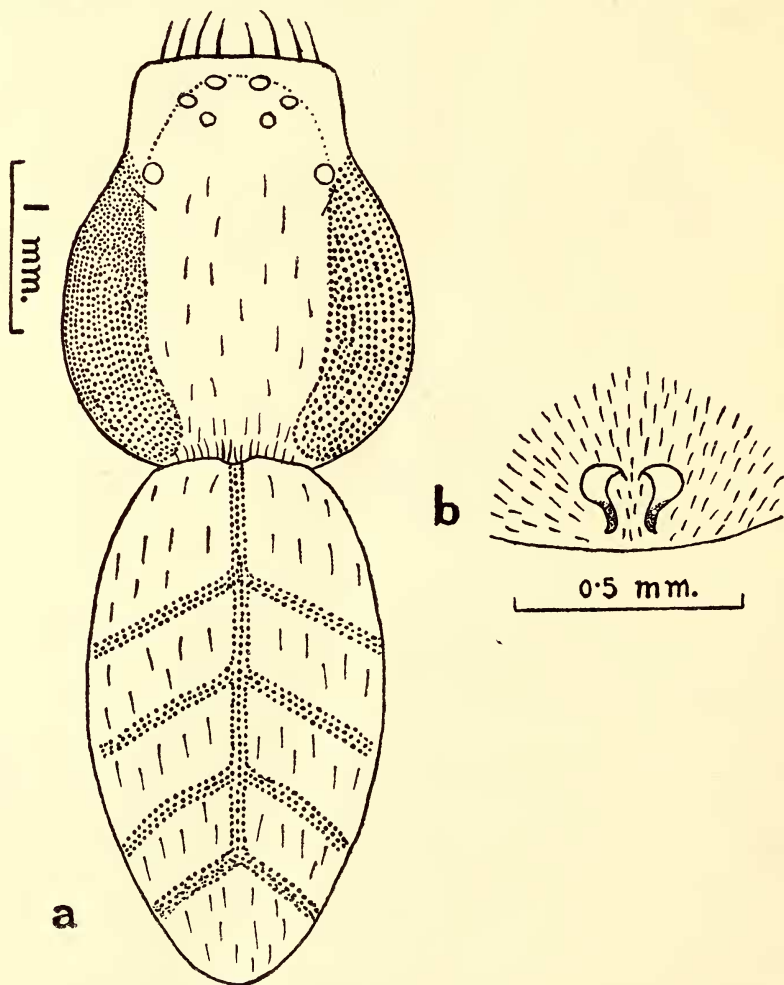
Holotype: One female in spirit.

Type-locality: Dhakuria (Calcutta). Coll. B. K. Tikader, 1-4-1958

This species resembles *Synaema parvula* (Hentz), but is separated as follows: (i) Cephalothorax green but in *S. parvula* brownish yellow; (ii) Four pairs of circular black spots on the dorsum near the lateral margin, but in *S. parvula* no such black spots, only a broad transverse black or brown band near the hind end of abdomen.

***Tibellus elongatus* sp. nov. (Fig. 3)**

General: Cephalothorax pale-greenish, eyes black, legs pale-green. Clypeus green, abdomen brownish. Total length 8.90 mm.; carapace



Text-fig. 3. *Tibellus elongatus* sp. nov.

(a) Dorsal view of whole body ; (b) Epigynum.

4.00 mm. long, 3.50 mm. wide; abdomen 5.00 mm. long, 2.80 mm. wide.

Cephalothorax longer than wide, sparsely spined, sides about $\frac{1}{4}$ portion with dark brown pigmented patches; clypeus medium, margin of clypeus with eight spines directed forward. Anterior row of eyes closer, recurved, anterior four eyes and posterior two median eyes form a wide hexagonal area, posterior lateral eyes remote from other eyes and the largest. Legs long, spined, bearing numerous black pigmented dots, I and II pairs of legs longer than the others, tibiae I and II with three pairs of ventral spines in the apical three-fourths.

Abdomen long, cylindrical, spined, narrower behind, very slightly overlapping the posterior region of cephalothorax, with a long median black pigmented line from nearly the base of abdomen to tip, four pairs of transverse pigmented lines from the median line to the lateral margin, these four pairs almost parallel with each other. Epigyne as in Fig. 3.

Holotype: One female in spirit.

Type-locality: Dhakuria (Calcutta). Coll. B. K. Tikader, 1-6-1958.

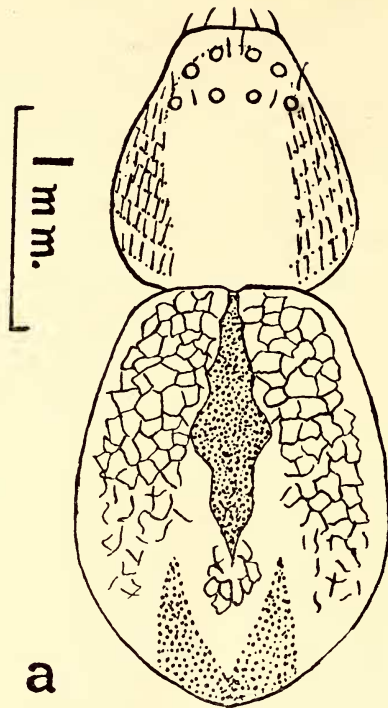
This species resembles *Tibellus duttoni* Keyserling, but is separated as follows: (i) Cephalothorax with two lateral dark brown pigmented patches, but in *T. duttoni* with three longitudinal brown stripes; (ii) Abdomen with a long median black pigmented line from base to tip and four pairs of transverse pigmented lines from the median line to the lateral margin, but in *T. duttoni* with three longitudinal brown stripes from base to tip of the abdomen.

***Thanatus dhakuricus* sp. nov. (Fig. 4)**

General: Cephalothorax pale greenish, eyes black, legs green, clypeus concolorous with cephalothorax, abdomen green, with white patches. Total length 3.20 mm.; carapace 1.20 mm. long, 1.10 mm. wide; abdomen 2.00 mm. long, 1.50 mm. wide.

Cephalothorax broadest behind, narrowing in front, maximum width slightly less than length, covered with small hairs, the sides about $\frac{1}{4}$ portion tinted with very light yellowish and ornamented by irregular dark pigmented patches, this area clothed with many small spines. Eyes black, equal, eight in two rows both recurved but the posterior row longer; both the rows form together a crescent-shaped area. Clypeus long, margin of clypeus with four spines directed forward. Legs relatively short and stout, spined and with dark brown pigmented dots.

Abdomen oval, clothed with pubescence; with white, irregular shaped, granular patches; longitudinal brown lance-shaped band anteriorly in the mid-dorsal, two longitudinal deep brown bands on either side of the posterior end.



Text-fig. 4. *Thanatus dhakuricus* sp. nov.
(a) Dorsal view of whole body.

Holotype: One female in spirit.

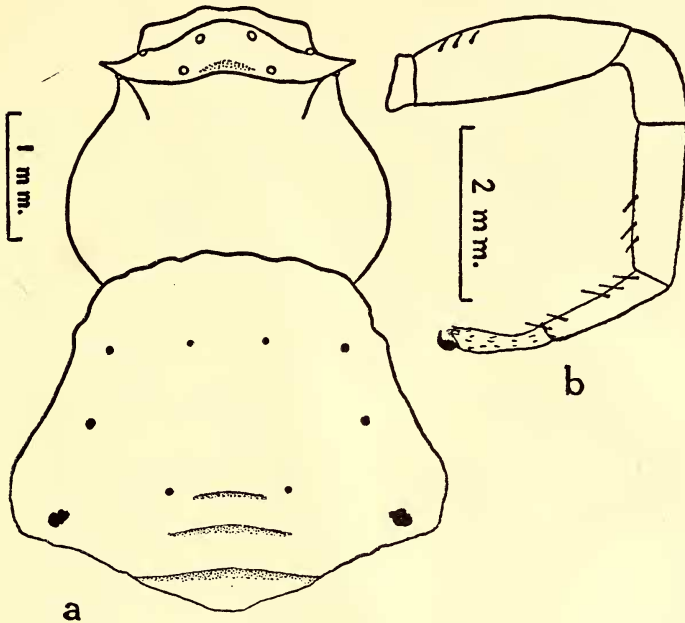
Type-locality: Dhakuria (Calcutta). Coll. B. K. Tikader, 1-5-1958.

This species resembles *Thanatus lycosoides* Emerton, but is separated as follows: (i) Cephalothorax pale greenish, but in *T. lycosoides* cephalothorax reddish-yellow with median longitudinal, brown band; (ii) Two longitudinal deep brown bands on either side of the posterior end of abdomen, but in *T. lycosoides* with an undulating brown band on each side of the hind part of abdomen; (iii) Eyes more or less equal in size, but in *T. lycosoides* the anterior median eyes much smaller than the anterior lateral eyes.

***Thomisus bulani* sp. nov. (Fig. 5)**

General: Cephalothorax greenish, ocular area whitish triangular, with a transverse yellow patch between the posterior median eyes; eyes black, clypeus green, legs also greenish, abdomen white. Total length 5.00 mm.; carapace 2.50 mm. long, 2.30 mm. wide; abdomen 3.40 mm. long, 3.60 mm. wide.

Cephalothorax high, as long as wide. Anterior median and anterior lateral eyes more or less equal. Clypeus moderate, sub-rectangular. Legs long and stout, I and II legs longer than others. Metatarsi of



Text-Fig. 5. *Thomisus bulani* sp. nov.

(a) Dorsal view of body; (b) 1st leg.

I and II legs with five pairs of ventral spines, posterior legs without spines; I pair of legs with three spines on each femur in front but not arising from black pigmented spots.

Abdomen pentagonal, overlapping the posterior region of cephalothorax in front, broadest just behind the middle, with three pairs of reddish-brown spots on dorsal surface near the lateral border; the spots arranged in longitudinal rows, the posterior pair of spots the largest; four very minute reddish-brown spots present on the middle and some times only two spots; posterior end with conspicuous transverse muscular corrugations.

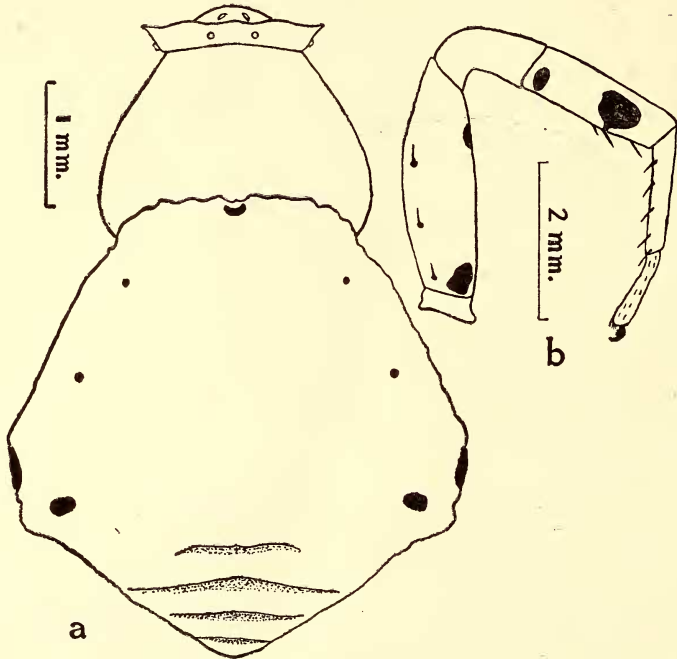
Holotype: One female in spirit.

Type-locality: Dhakuria (Calcutta). Coll. B. K. Tikader, 14-3-1958.

This species resembles *T. pugilis* Stoliczka but is separated as follows: (i) Black spots on the dorsal side of abdomen, no such spots in *T. pugilis*; (ii) Clypeus green, but in *T. pugilis* clypeus whitish like ocular area; (iii) Three spines on the femur of 1st legs, but no such spines in *T. pugilis*.

Thomisus dhakuriensis sp. nov. (Fig. 6)

General: Cephalothorax brownish-green; ocular area yellowish-brown, with small chalk-white patches; eyes black; clypeus green, with dark brown in the middle; legs also greenish; abdomen chalk-white. Total length 5.50 mm.; carapace 2.50 mm. long, 3.00 mm. wide; abdomen 4.00 mm. long, 3.70 mm. wide.

Text-fig. 6. *Thomisus dhakuriensis* sp. nov.

(a) Dorsal view of whole body ; (b) 1st leg.

Cephalothorax broadest posteriorly slightly narrowing in front, maximum width slightly more than length. Eyes four pairs. Anterior median eyes somewhat smaller than the anterior laterals; clypeus long, subrectangular. Legs long and stout, I and II legs longer than III and IV legs; I leg with conspicuous black spots basally below on femur, a narrow black spot subapically on tibia in front; with three spines from black pigmented spots on each femur in front; II leg with a black spot basally below on femur and a narrow black spot basally in front on tibia, metatarsi of I and II legs with five pairs of ventral spines, III and IV pairs of legs unspotted and without spines.

Abdomen pentagonal, overlapping the posterior region of cephalothorax in front, broadest just behind the middle, with four elliptical

black spots laterally, two on each side, one near the broadest region and the other near the anterior region. Three pairs of very dark brown spots sublaterally on dorsal surface, black spots arranged in longitudinal rows; posterior pair the largest; a single minute crescent-shaped black spot medially at anterior margin, posterior end with conspicuous transverse muscular corrugations.

Holotype: One female in spirit.

Type-locality: Dhakuria (Calcutta). Coll. B. K. Tikader, 30-3-1958.

This species is very near *T. pugilis* Stoliczka, with the type of which it has been compared, but differs as below: (i) Cephalothorax smaller than in *T. pugilis*; (ii) Femora and tibiae of I and II legs with conspicuous black spots; no such spots in *T. pugilis*; (iii) Abdomen longer, dorsal and lateral sides bearing black spots; no such black spots in *T. pugilis*.

***Thomisus projectus* sp. nov. (Fig. 7)**

General: Cephalothorax greenish; clypeus and abdomen chalky white. Total length 6.80 mm.; carapace 3.80 mm. long, 3.40 mm. wide; abdomen 4.00 mm. long, 4.10 mm. wide.

Cephalothorax pentagonal in shape, with a transverse yellow band on the ocular area; narrowing slightly in front, maximum width slightly less than length. Anterior median eyes slightly smaller than anterior laterals. Clypeus long, subrectangular. Legs long and stout, I and II longer than III and IV. I legs with a conspicuous incomplete transverse black mark anteriorly above on femur, a narrow black spot in front on patella, a small spot on the base, a large black spot subapically on tibia in front and a faint brown patch on the tip of metatarsus; I pair of legs with three spines above on femur; II legs with a small black spot on patella and a black spot subapically on tibia in front; metatarsi I and II with six pairs of ventral spines; III and IV pairs spotless and spineless.

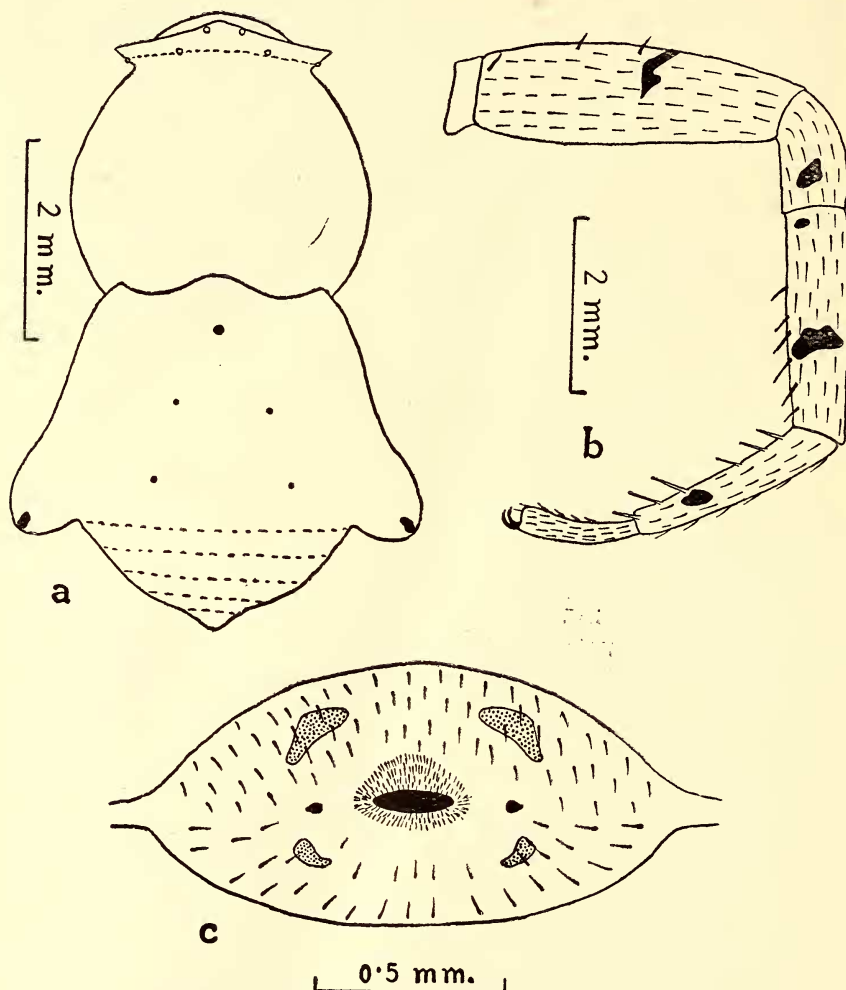
Abdomen pentagonal slightly overlapping the posterior region of cephalothorax in front, broadest at the middle, this portion tuberculating laterally and a black spot on the top of tubercle, a yellow spot just inner side of black spot; posterior half of abdomen with prominent transverse muscular corrugation. Epigyne as in Fig. 7.

Holotype: One female in spirit.

Type-locality: Habra c. 48 kilometres north-east of Calcutta. Coll. B. K. Tikader, 7-9-1958.

This species is near to *T. pugilis* Stoliczka, with the type of which it has been compared, but differs as follows: (i) I legs with conspicuous black spots, no such spots in *T. pugilis*; (ii) Abdomen

broadest at the middle, this portion tuberculating laterally and a black spot on the top and a yellow spot just inner side of black spot, but in



Text-fig. 7. *Thomisus projectus* sp. nov.

(a) Dorsal view of whole body ; (b) 1st leg ; (c) Epigynum.

T. pugilis abdomen broadest at behind the middle and no such spots and tubercle.

SUMMARY

Seven new species of spiders are described in this paper. All were collected from West Bengal, six of them from a suburb of Calcutta.

The new species belong to five genera distributed in the family Thomisidae.

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REFERENCES

- Comstock, J. H. (1940) : The Spider Book. New York. pp. 534-563.
- Dyal, Sukh, (1935) : Spiders of Lahore. *Bull. Dept. Zool. Punjab Uni., Lahore* 1: 119-252.
- Locket, G. H. & Millidge, A. F. (1951) : British Spiders. Ray Society, London. 1 : 168-205.
- Petrunkevitch, A. (1911) : Index Catalogue of American Spiders. *Bull. Amer. Mus. Nat. Hist., New York.* 29: 1-790.
- Pocock, R. I. (1900) : The Fauna of British India, Arachnida, London, pp. 153-279.
- Simon, E. (1864) : Histoire naturelle des araignes, Paris. 1: 949-1066.
- Stoliczka, (1869) : *J. Asiatic Soc. Bengal* 38 : 201-299.
- Thorell, T. (1895) : Spiders of Burma, London, pp. 1-404.